

CLAIMS

1. Process for the preparation of doped pentasil-type zeolite, which process comprises the steps of:
 - 5 a) preparing an aqueous precursor mixture from a silicon source, an aluminium source, and doped non-zeolitic seeds, and
 - b) thermally treating the precursor mixture to form a doped pentasil-type zeolite.
- 10 2. The process of claim 1 wherein the doped pentasil-type zeolite is doped ZSM-5.
3. The process according of claim 1 wherein the non-zeolitic seeds are X-ray amorphous.
- 15 4. The process according of claim 1 wherein the non-zeolitic seeds are milled crystalline materials that have a relative crystallinity of not more than 75%.
5. The process of claim 4 wherein the milled crystalline materials have a
20 relative crystallinity of not more than 60%.
6. The process of claim 5 wherein the milled crystalline materials have a relative crystallinity of not more than 50%.
- 25 7. The process of claim 1 wherein the non-zeolitic seeds are crystalline materials other than zeolites.

8. The process of claim 1 wherein the non-zeolitic seeds are doped with a dopant selected from the group consisting of Ce, La, Zr, Mn, Fe, Ti, Cu, Ni, Zn, Mo, W, V, Sn, Pt, Pd, Ga, B, and P.
- 5 9. The process of claim 1 wherein the silicon source is selected from the group consisting of sodium (meta)silicate, stabilised silica sols, silica gels, polysilicic acid, tetra ethylortho silicate, fumed silicas, precipitated silicas, and mixtures thereof.
- 10 10. The process of claim 1 wherein the aluminium source is selected from the group consisting of $\text{Al}_2(\text{SO}_4)_3$, AlCl_3 , AlPO_4 , $\text{Al}_2(\text{HPO}_4)_3$, $\text{Al}(\text{H}_2\text{PO}_4)_3$, aluminium trihydrate ($\text{Al}(\text{OH})_3$), thermally treated aluminium trihydrate, (pseudo)boehmite, aluminium chlorohydrol, aluminium nitrohydrol, and mixtures thereof.
- 15 11. The process of claim 1 wherein a shaping step is performed between steps a) and b).